Configuration Management “The Cookbook Approach”

Presented By

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Configuration Management "The Cookbook Approach"

This session will present an overview of "Building the Configuration Management Cookbook" beginning with establishment of initial System Engineering Requirements through the final release of the product developed. This presentation identifies such areas as identification of the Change Authority, Identification of the Artifacts being developed, and how the artifacts are baseline controlled by the CM Department.

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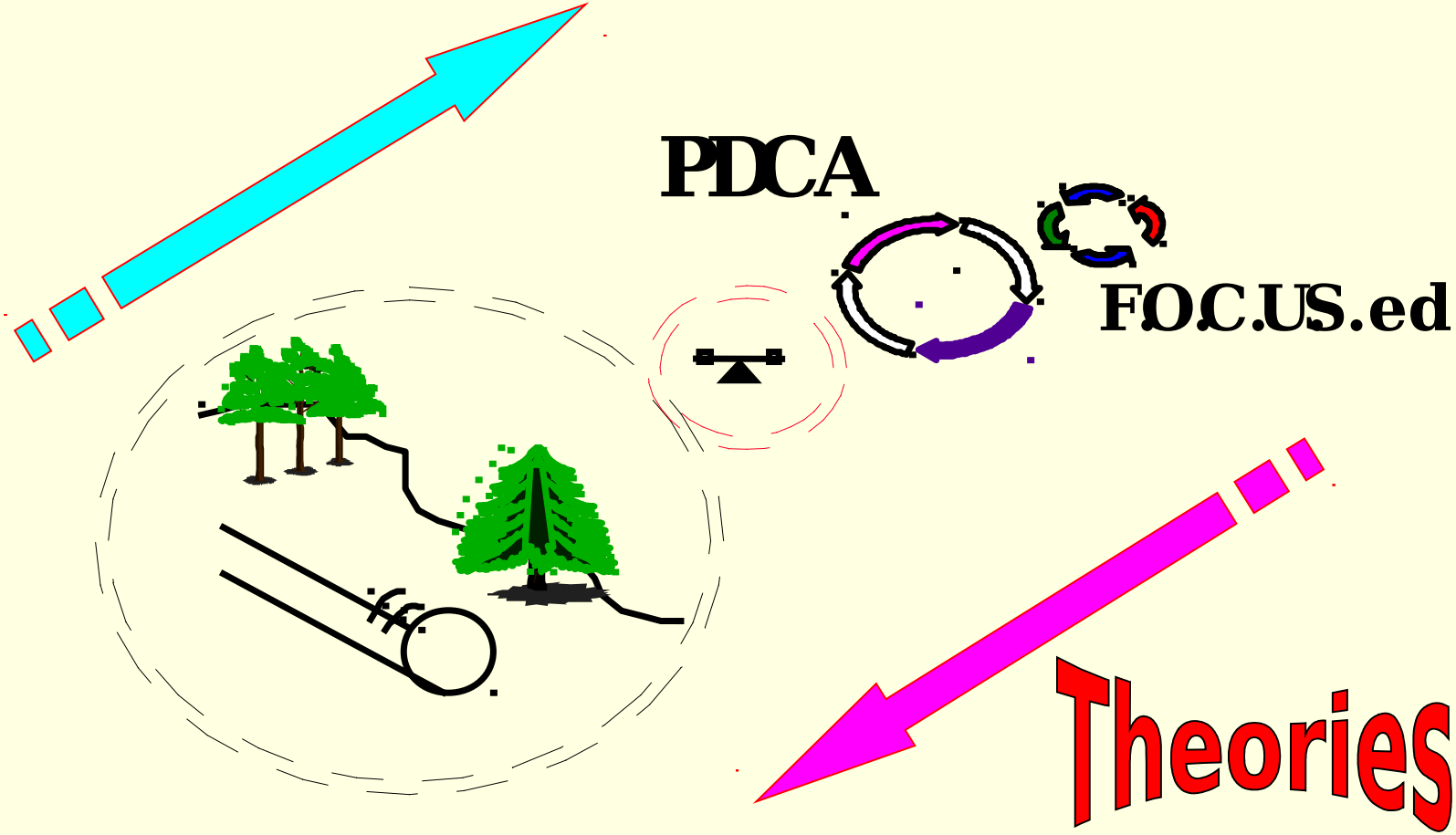

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- **Industry "Best Practices" Reference Material**
  - **ANSI/EIA 649; "National Consensus Standard for Configuration Management"**
  - **IEEE/EIA 12207.0; "Software Life Cycle Processes"**
  - **MIL-HDBK-61A; "Configuration Management Guidance"**
  - **MIL-STD-100G; "Engineering Drawing Practices"**
  - **ASME Y14.100M; "Engineering Drawing Practices"**
  - **ISO 10007; "Quality Management – Guidelines for Configuration Management"**
  - **CMMI℠; "CMMI℠ for Systems Engineering, Software Engineering, and Integrated Product and Process Development"**

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Establish your Approach (Planning & Management)

The primary processes consist of five processes that serve primary parties during the life cycle of a product. A primary party is one that initiates or performs the development, operation, or maintenance of software products. The primary processes are:

1) **Acquisition Process: Defines the activities of the acquirer, the organization that acquires a system.**

2) **Supply Process: Defines the activities of the supplier, the organization that provides the system.**

3) **Development Process: Defines the activities of the developer, the organization that defines and develops the product.**

4) **Operational Process: Defines the activities of the operator, the organization that provides the service of a system in its live environment for its users.**

5) **Maintenance Process: Defines the activities of the maintainer, the organization that provides the service of maintaining the product; that is, managing modifications to the product to keep it current and in operational fitness. This process includes the migration and retirement of the product.**

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Establish your Approach (Planning & Management)

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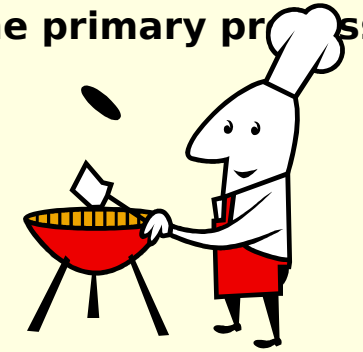
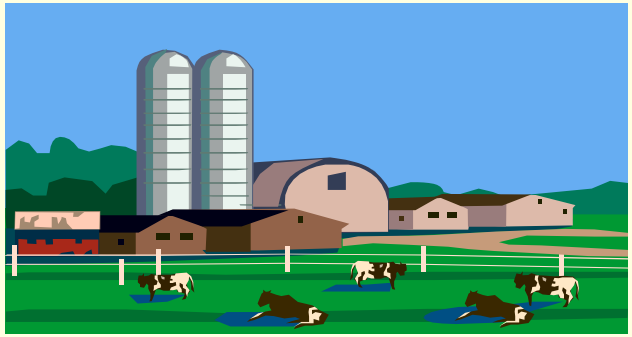


Acquisition Process



Development Process

Supply Process

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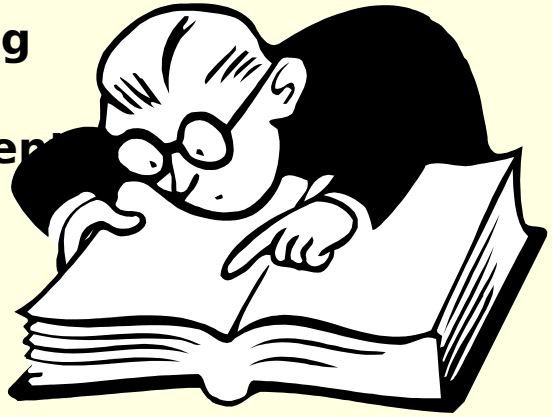
Review the Different Recipes (Identification)

Management Support & Resources

Systems Engineering

Software Engineering

Configuration Management



Production

Electrical

Mechanical

Quality Assurance

Logistics

Architecture

Training

Product Test & Integration

Development & Testing

Measurement & Analysis

Process Improvement

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"Apply the 5 Basic Functions of CDM"

Identification

Change Control

Management & Planning

Review & Audits

Status Accounting

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1st I.D of Life Cycle Processes		2nd Systems Reqts. Analysis	3rd Architectural Design	4th S/W Reqts. Analysis	5th Detailed Design	6th Code & Unit Test
Documentation CDM Plan QA Plan Verification Plan Validation Plan Joint Reviews Plan Audit Plan	Plans & Procedures	XXX	XXX	XXX	XXX	XXX
	Change Control Authority	Systems Engineering Mgr.	Architectural Engineering Mgr.	Software Engineering Mgr.	Software Release Mgr.	Software Release Mgr.
	Products being Developed	Use Case Model Req. Hierachy Scenarios Behaviors	Arch. Document	Classes Scenarios Scope SRS/IRS	Build Plan Concepts Interfaces	Test Plan Test Descrip. Test Report
	Database Tools	Doors, Slate, RTM, etc…	CMIS, IDE, etc.	Apex, Clear Case, etc.		
	Database Control (Baseline vs. Version Control)					

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	7th S/W Integration	8th S/W Qual. Testing	9th Systems Integration	10th Systems Qual. Testing	11th Acceptance	12th Support
Plans & Procedures	XXX	XXX	XXX	XXX	XXX	XXX
Change Control Authority	I&T Mgr.	I&T Mgr.	I&T Mgr.	I&T Mgr.	Product Assurance Mgr.	Program Mgr.
Products being Developed	Test Plan Test Descrip. Test Report	Test Plan Test Descrip. Test Report	Test Plan Test Descrip. Test Report	Test Plan Test Descrip. Test Report	Test Plan Test Descrip. Test Report	O&M Plan Training Plan
Database Tools						
Database Control (Baseline vs. Version Control)		Baseline Audit		Baseline Audit	PCA/FCA	

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1st I.D of Life Cycle Processes		2nd Systems Reqts. Analysis	3rd Architectu ral Design	4th S/W Reqts. Analysis	5th Detailed Design	6th Code & Unit Test
Documentati on CDM Plan QA Plan Verification Plan Validation Plan Joint Reviews Plan Audit Plan						

Performed Process: A process that accomplishes the needed work to produce identified output work products using identified input work products.

Planned Process: A process that is documented both by a description and a plan. The description and plan should be coordinated, and the plan should included standards, requirements, objectives, resources, assignments, etc.

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Documentati on	Plans & Procedure s	XXX	XXX	XXX	XXX	XXX
CDM Plan QA Plan Verification Plan Validation Plan Joint Reviews Plan Audit Plan	**Product-Related life-Cycle Processes; Processes associated with a product throughout one or more phases of its life (i.e., from conception through disposal), such as the manufacturing and support processes.**					

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1st I.D of Life Cycle Processes		2nd Systems Reqts. Analysis	3rd Architectu ral Design	4th S/W Reqts. Analysis	5th Detailed Design	6th Code & Unit Test
Documentati on CDM Plan QA Plan Verification Plan Validation Plan Joint Reviews Plan Audit Plan	Change Control Authority	Systems Engineering Mgr.	Architectu ral Engineerin g Mgr.	Software Engineerin g Mgr.	Software Release Mgr.	Software Release Mgr.
	Configuration Control Board; A Group of people responsible for evaluating and approving or disapproving proposed changes to configuration Items, and for ensuring implementation of approved changes.					

Configuration Manageme
"The Cookbook Approach

1st I.D of Life Cycle Processes		2nd Systems Reqts. Analysis	3rd Architectu ral Design	4th S/W Reqts. Analysis	5th Detailed Design	6th Code & Unit Test
Documentati on CDM Plan QA Plan Verification Plan Validation Plan Joint Reviews Plan Audit Plan	Products being Developed	Use Case Model Req. Hierachy Scenarios Behaviors	Arch. Document	Classes Scenarios Scope SRS/IRS	Build Plan Concepts Interfaces	Test Plan Test Descrip. Test Report

Product: Any tangible output or service that is a result of a process and that is intended for delivery to a customer or end user.

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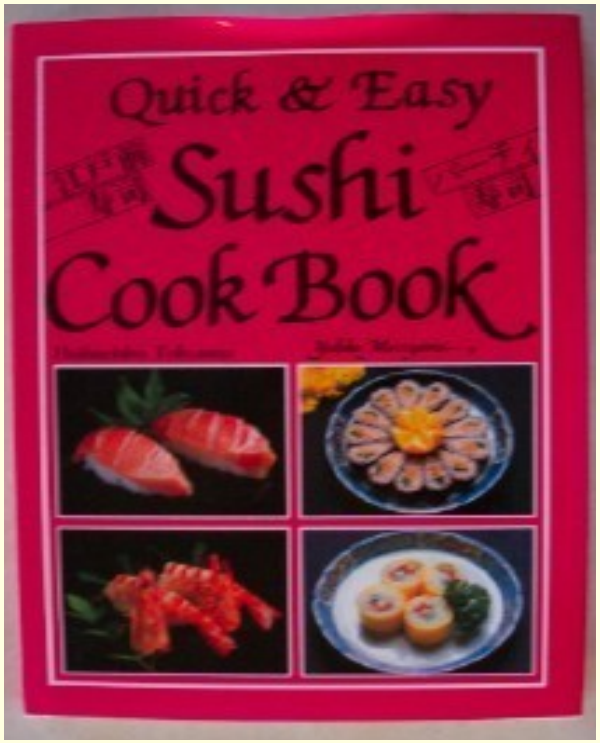
Establish your Approach (Planning & Management)



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Understand Your Requirements
(Planning & Management)

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Identify Your Tools for Accomplishing the Task

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Phase 1

Phase 2

Phase 3

Phase 4

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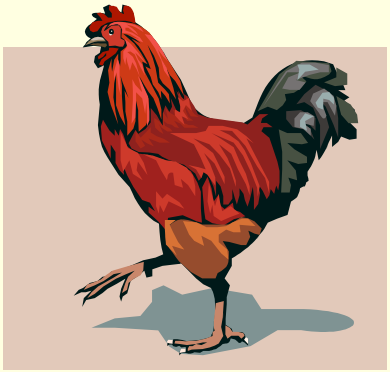
Review the Recipes (Identification)



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Identify Your Tools for Accomplishing the Task (Identification)

Porter House

Grill

Stove

Microwave

Configuration Manageme
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Identify Your Tools for Accomplishing the Task (Identification)

Types of Spices

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Change Control

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Status Accounting

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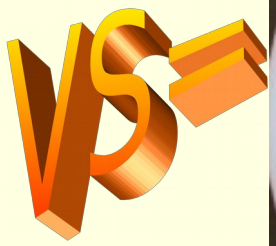
Verification & Audit



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